## AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently amended) Input multiplexer (IMUX) for splitting a broad frequency band into a series of narrower frequency channels by means comprising of a bandpass filter per frequency channel, each filter having an input and an output, characterized in that

high circuit order bandpass filters with a circuit order of more than 6 have zero positions in the transmission function on the imaginary frequency axis in the vicinity of the passband for improving the flank steepness and a low variation in the group running time within the pass band, achieved by an external running time equalizer or further zero positions in the transmission function with a finite real part or a combination hereof, with each of these inputs coupled to a low loss bus bar (1), which consists of comprises conducting pieces of optimized length.

2. (Currently amended) The input multiplexer of claim 1 characterized in that wherein the bus bar (1) connects band pass the bandpass filters non-contiguously.

- 3. (Currently amended) The input multiplexer of claim 1, characterized in that wherein the busbar (1) connects the bandpass filters contiguously.
- 4. (Currently amended) The input multiplexer of one of the preceding claims, characterized in that claims 1-3, wherein the bandpass filter and the busbar (1) are constructed in the waveguide technique, the coaxial technique, the dielectric technique and/or the planar technique.
- 5. (Currently amended) The input multiplexer of one of the preceding claims, characterized in at claims 1-3, wherein the geometry of the low loss busbar (1) is combline combine or herringbone.
- 6. (Currently amended) The input multiplexer of one of the preceding claims, characterized and that claims 1-3, wherein the bandpass filters consist of comprises resonators in the single mode, dual mode, triple mode and/or in the quadruple mode.
- 7. (Currently amended) The input multiplexer of one of the preceding claims, characterized in that claims 1-3, wherein the filters, with respect to their center frequency, are connected in any sequence with the busbar (1).

8. (Currently amended) The input multiplexer of one the preceding claims, characterized in that of claims 1-3, further comprising devices for equalizing the bandpass filters and/or the busbar are present.

- 9. (Currently amended) The multiplex of one the preceding claims, characterized in that of claims 1-3, wherein the individual multiplexes are connected over hybrid couplers and/or power splitters.
- 10. (Currently amended) The multiplexer of one of the preceding claims, characterized in that claims 1-3, wherein the overall arrangement of the multiplexer covers all channels of an IMUX.
- 11. (Currently amended) The multiplex of one of the preceding claims; characterized and that claims 1-3, wherein the filter functions are symmetrical or asymmetrical.